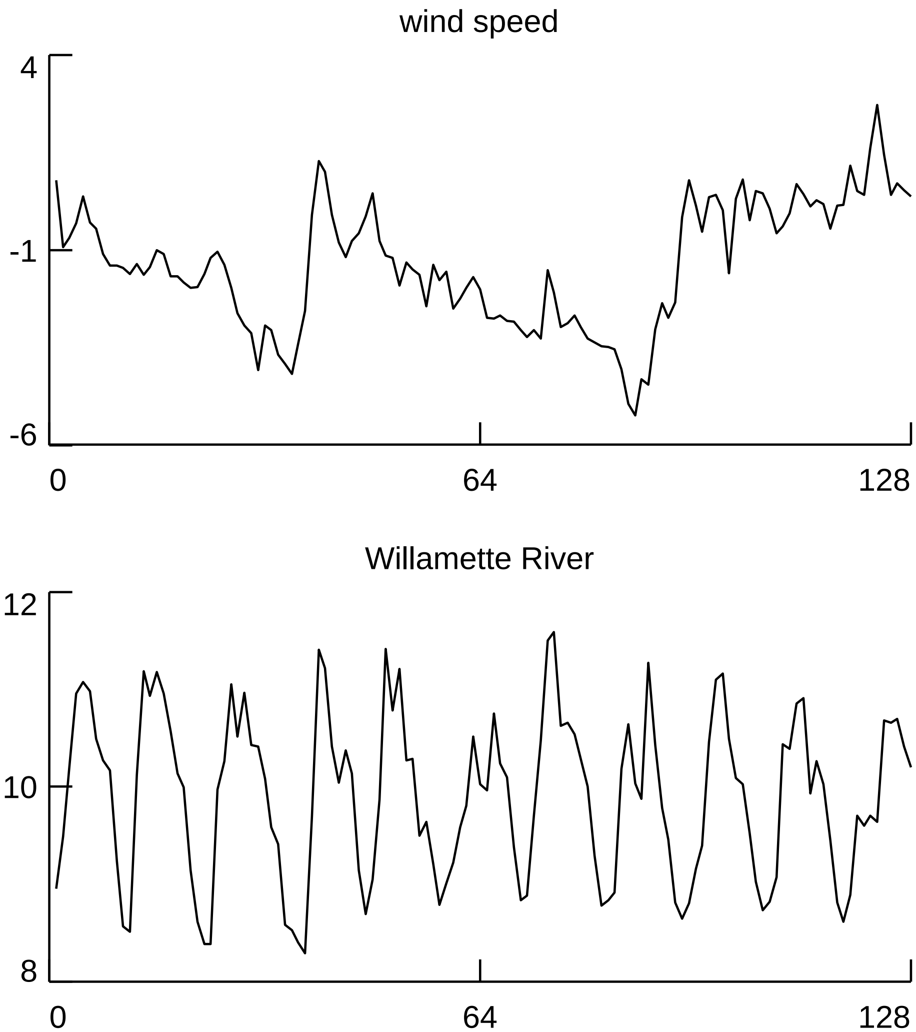

Figure 2. Plots of portions of the first two time series. For both series the vertical axis is the value of the time series (in unspecified units), while the horizontal axis is time (measured at 0.025 second intervals for the wind speed series and in months for the Willamette River series).

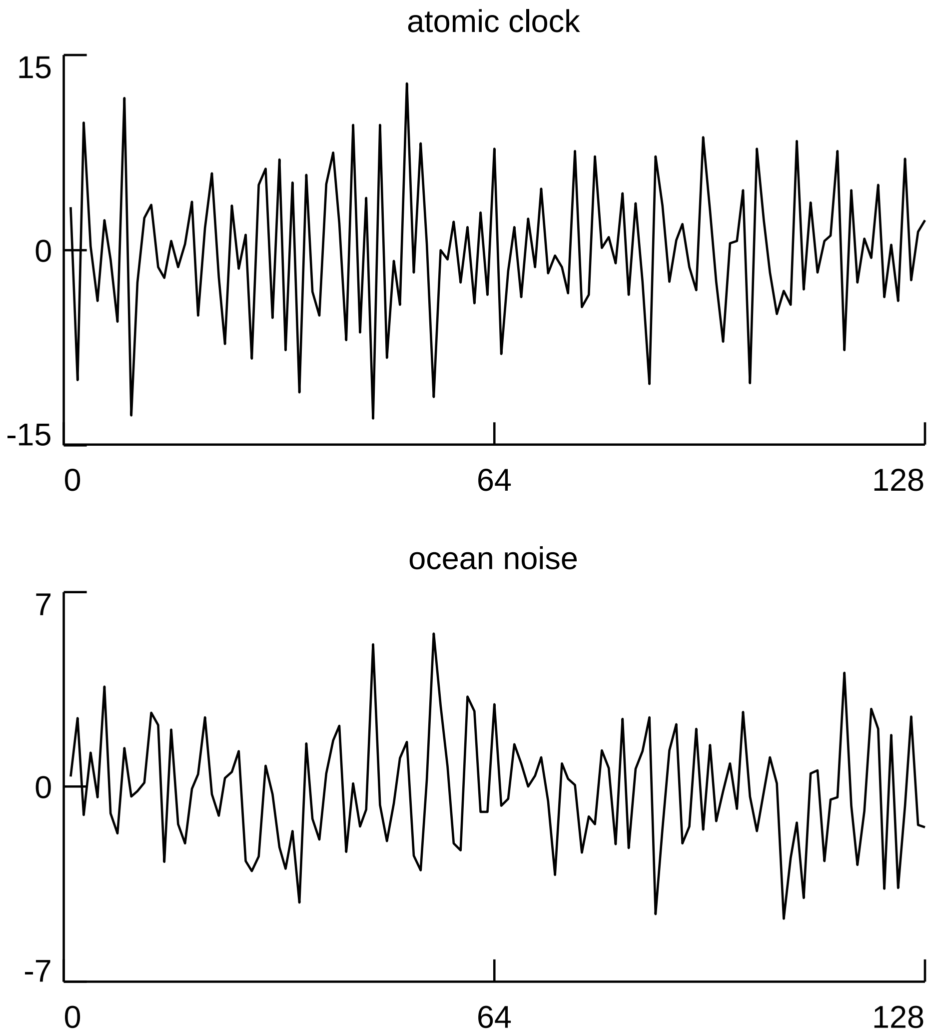

Figure 3. Plots of portions of the last two time series. The horizontal axes are again time (measured in days for the atomic clock data and in seconds for the ocean noise series).

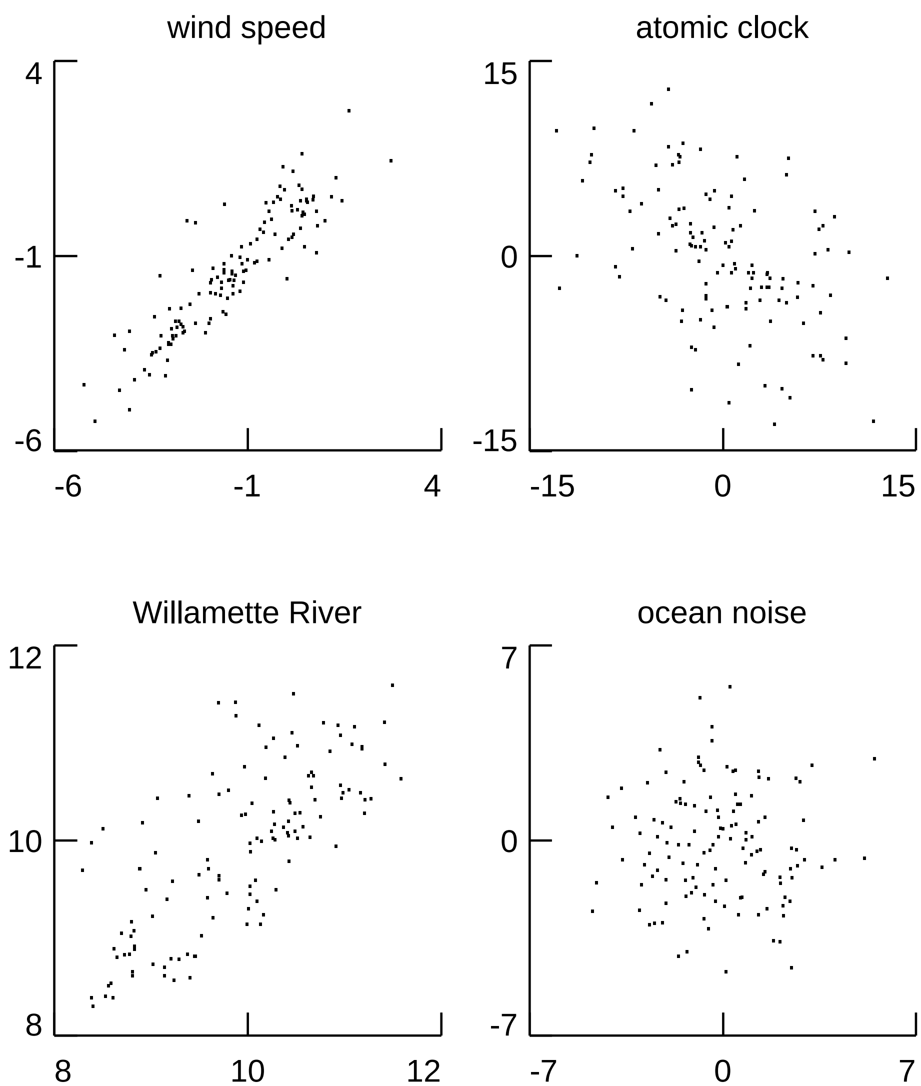

Figure 4. Lag 1 scatter plots for the time series in Figures 2 and 3. In each of these plots, the value of the time series at time $t + 1$ is plotted on the vertical axis versus the value at time t on the horizontal axis (for t ranging from 1 to 127).

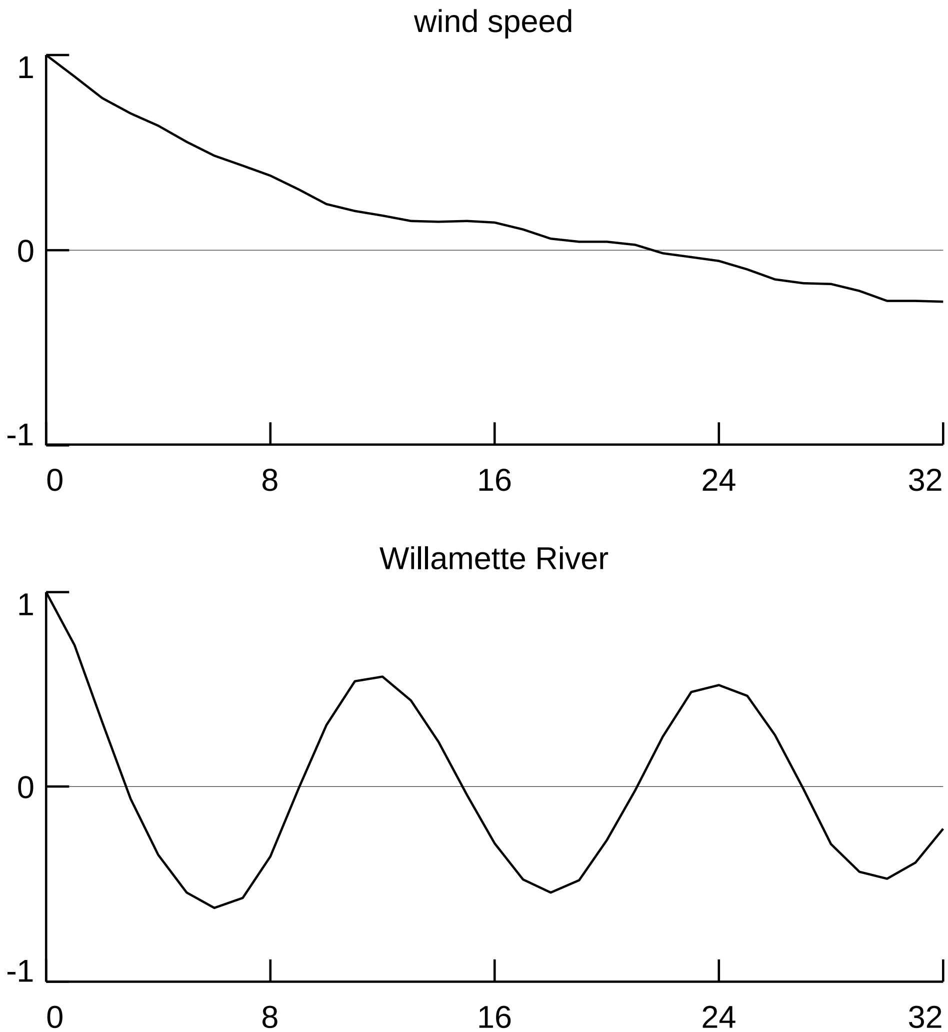

Figure 6. Sample autocorrelation sequences for the time series of Figure 2. The value of the acs at lag k is plotted versus k for k ranging from 0 to 32. By definition the acs for lag 0 is 1.

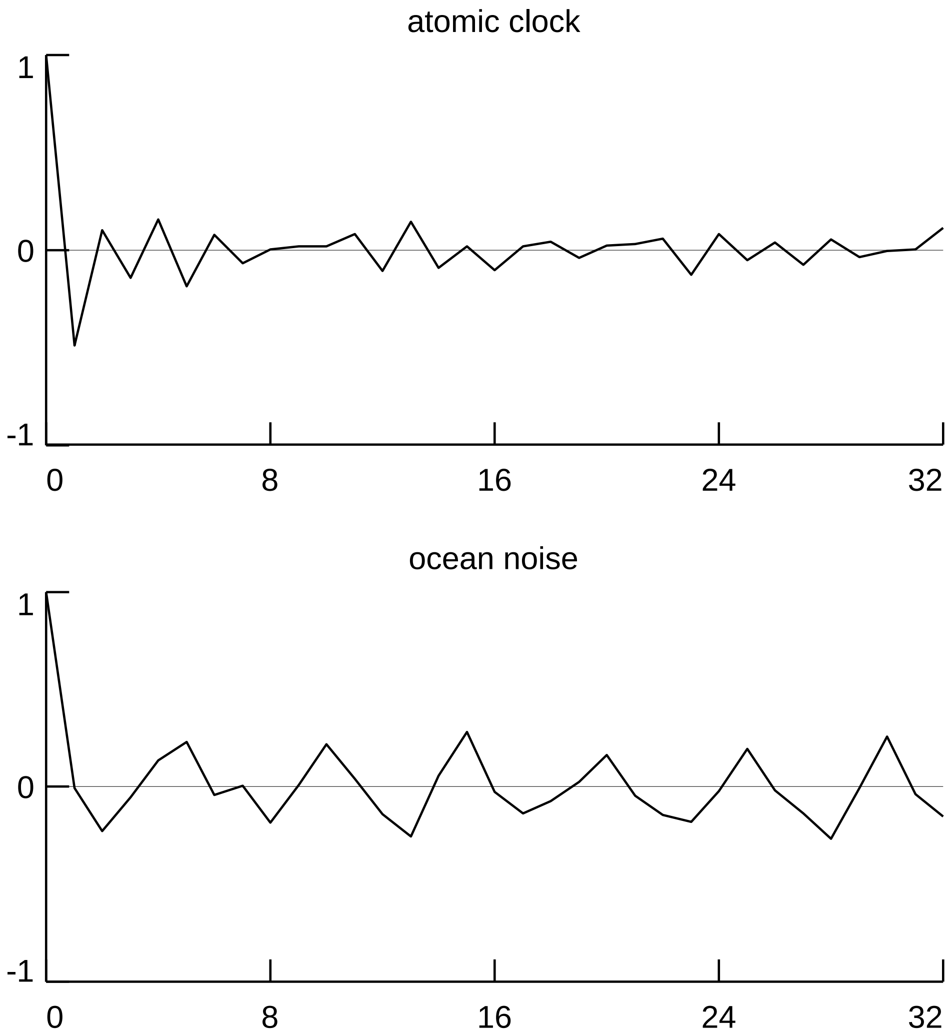

Figure 7. Sample autocorrelation sequences for the time series of Figure 3.

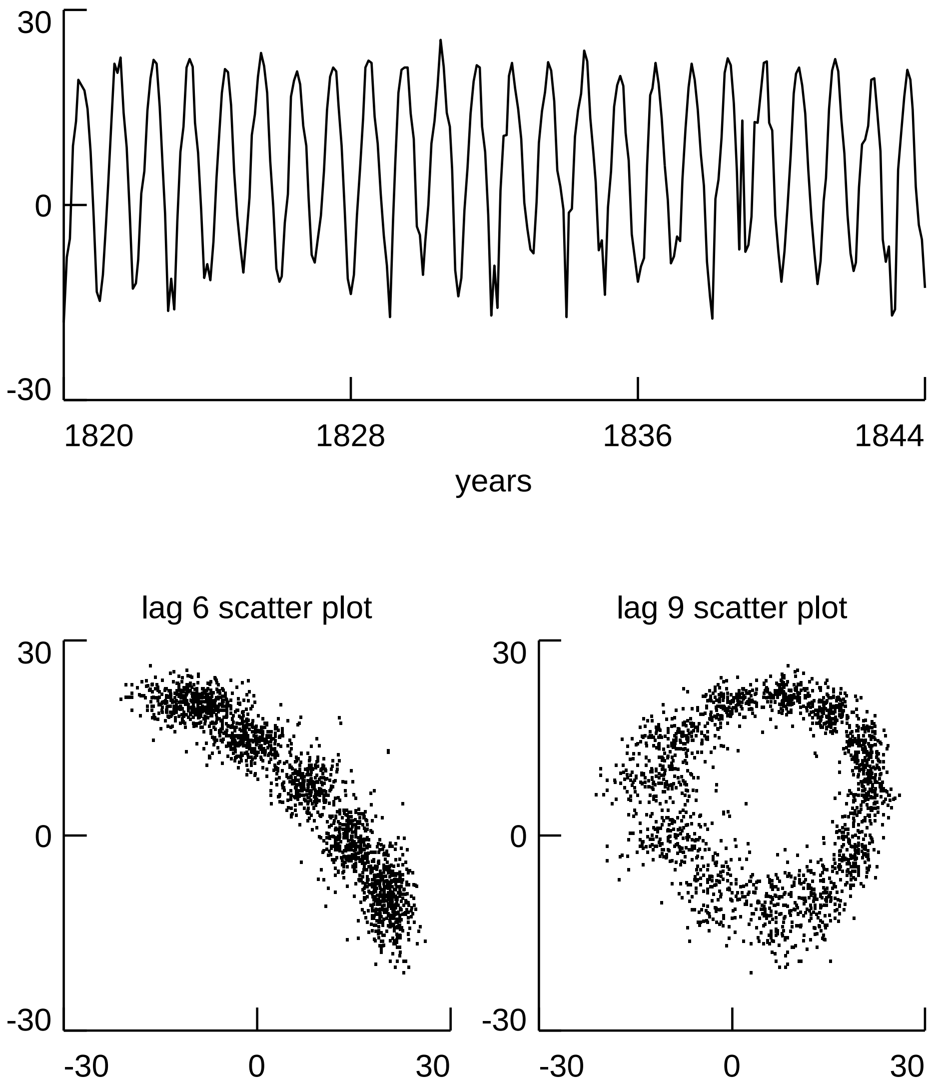

Figure 9. Plots of the first 24 years of the St. Paul temperature time series and the lag 6 and 9 scatter plots for the entire series. The temperature series is measured in degrees centigrade. For the lag k scatter plot (k = 6, 9), the value x_{t+k} is plotted on the vertical axis versus x_t on the horizontal axis.

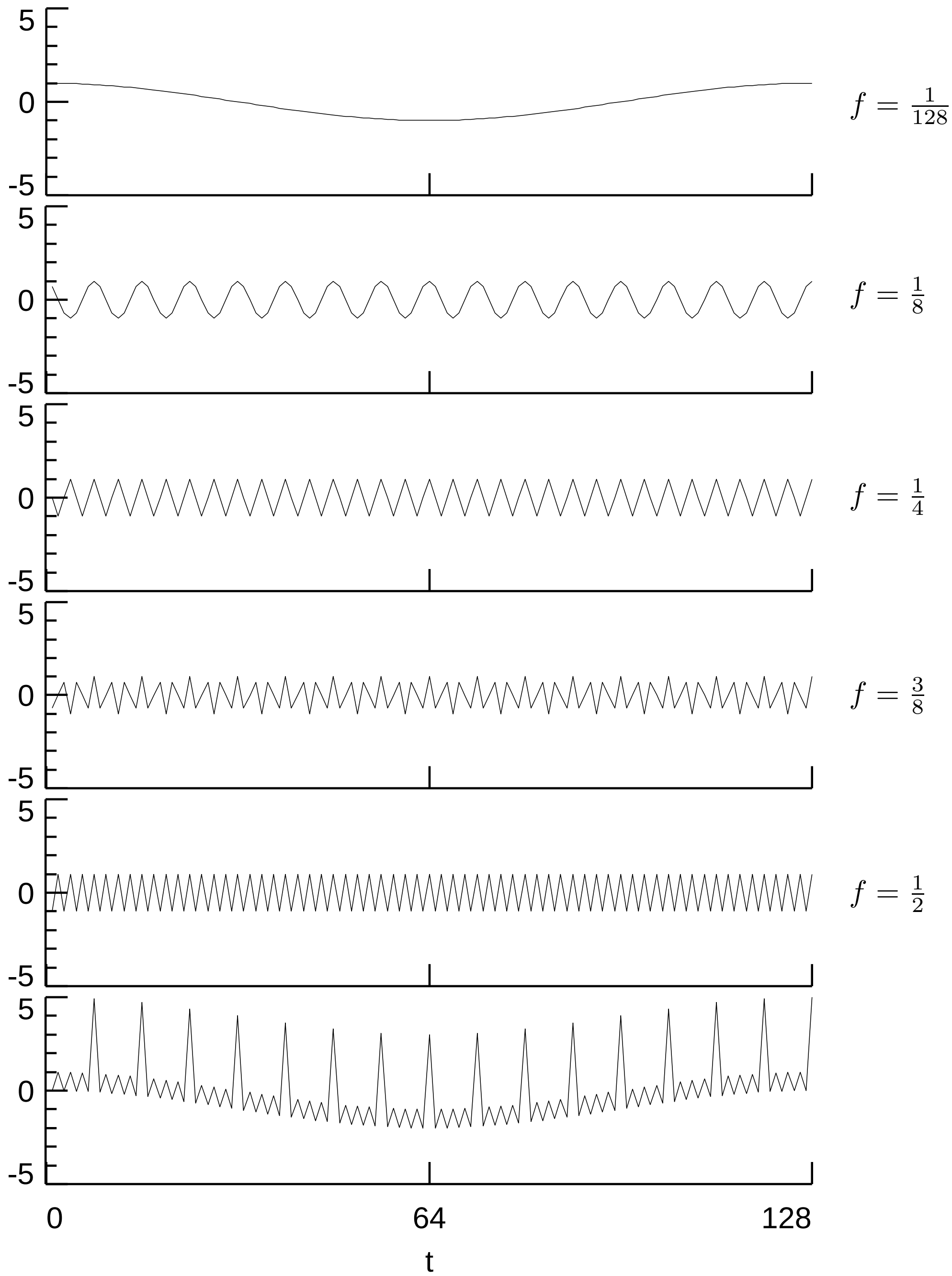

Figure A1. Five sinusoids and their summation.

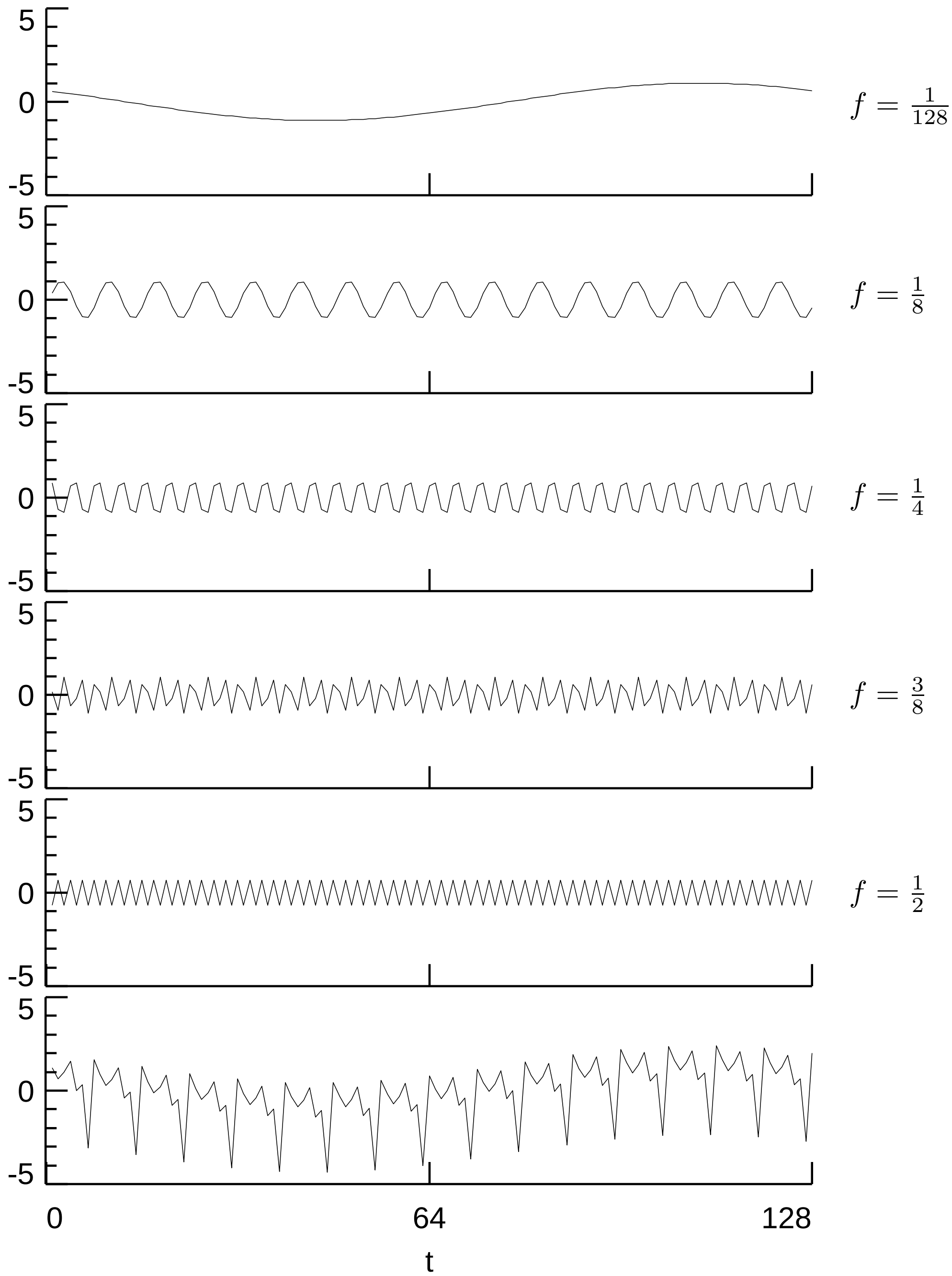

Figure A2. Five sinusoids with random phases and their summation.

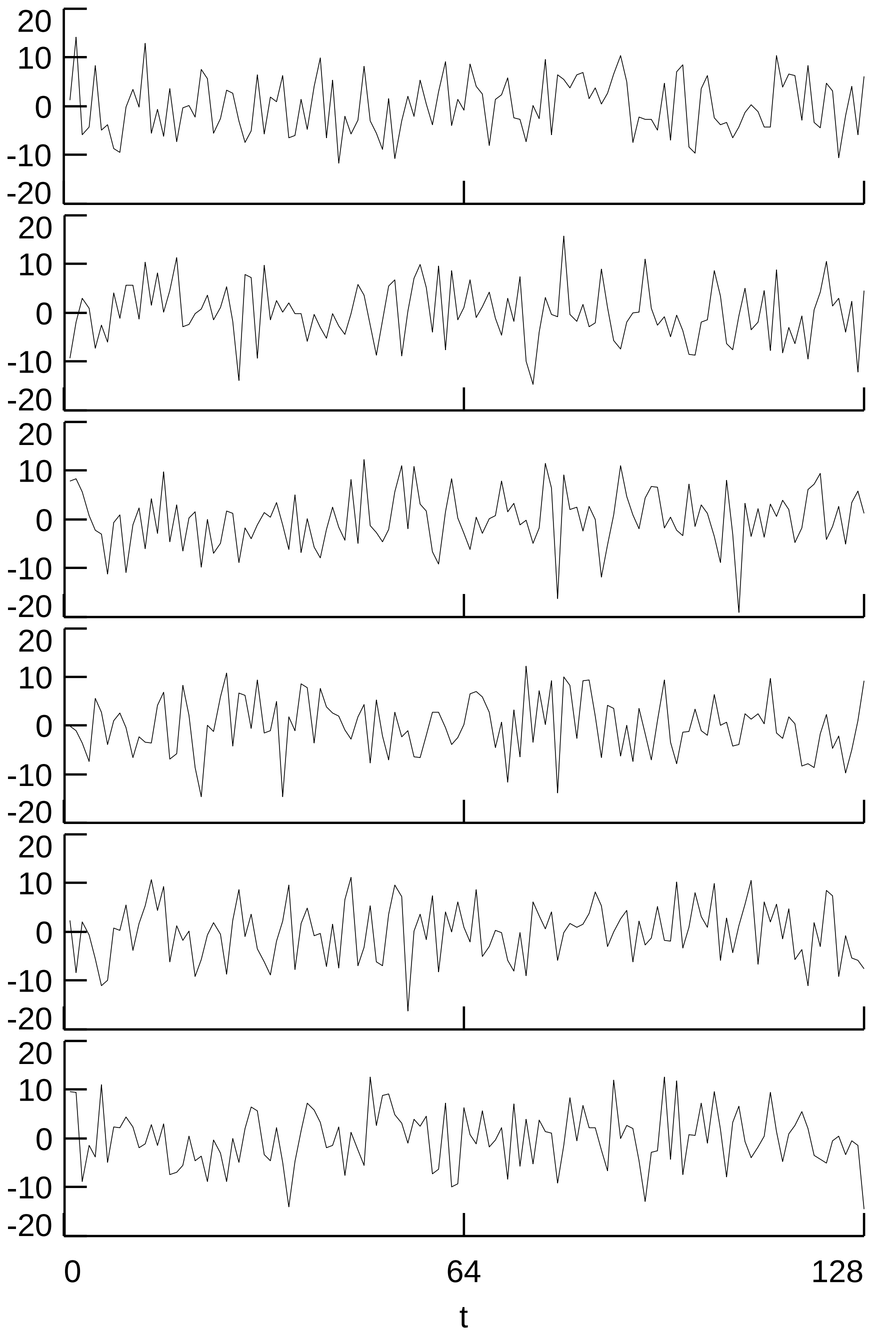

Figure A3. Six examples of summations of 64 sinusoids with random phases.

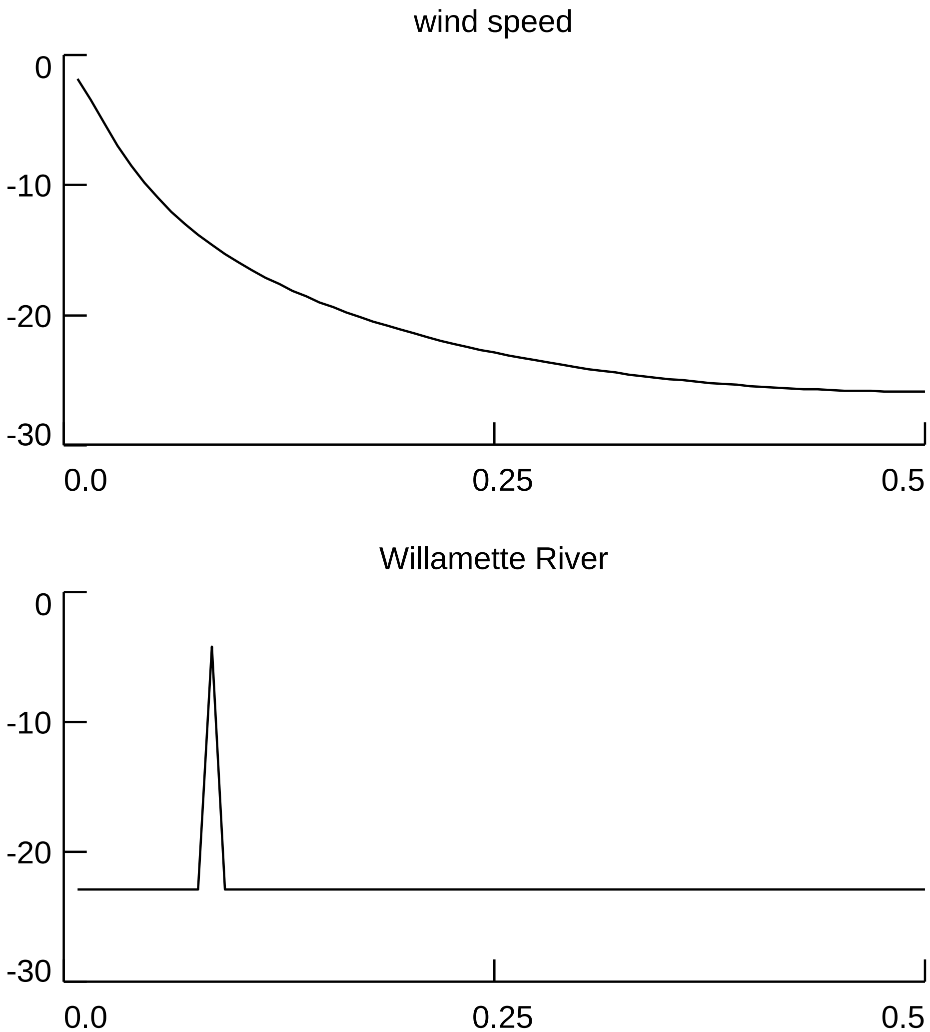

Figure 12. Plots of theoretical spectra of models for two time series in Figure 2. The 64 values that determine each spectra are connected by solid lines. The horizontal axis represents frequency measured in cycles per unit time. The vertical axis represents 10 $\log_{10}(S_j)$, i.e., S_j expressed in decibels (dB).

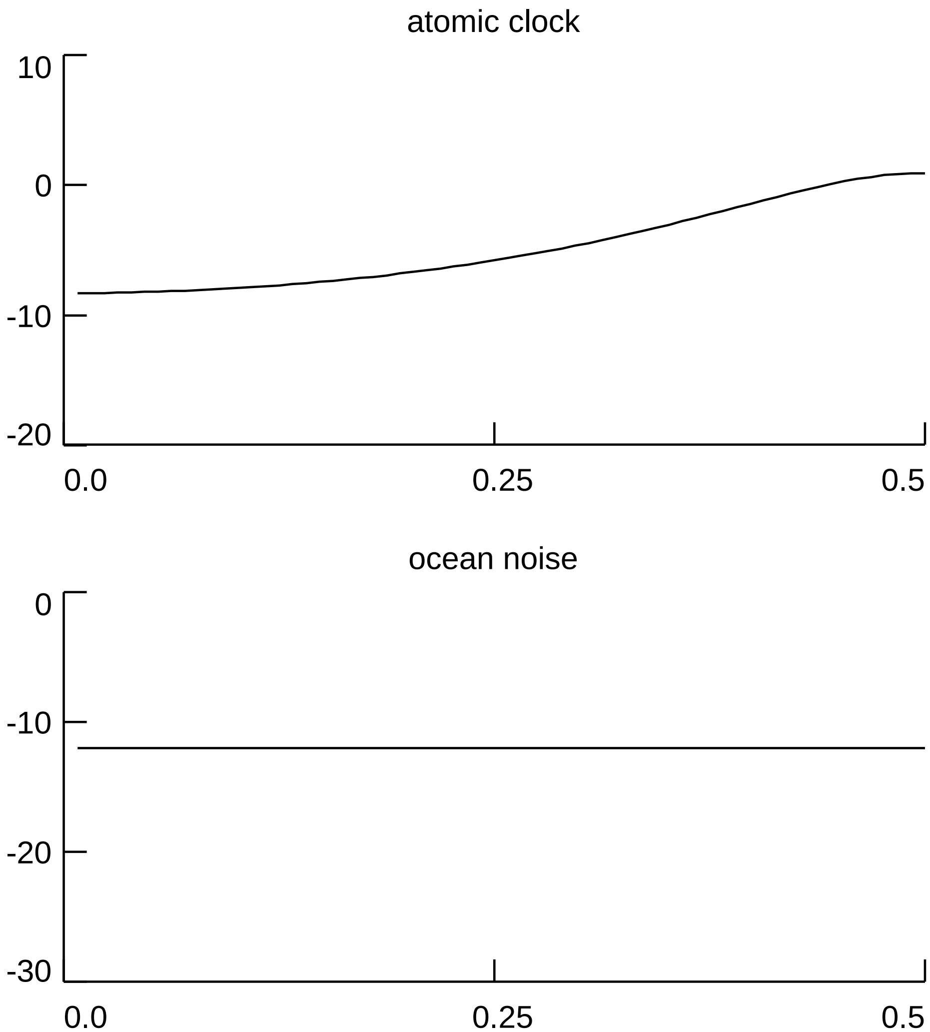

Figure 13. Plots of theoretical spectra of models for two time series in Figure 3.

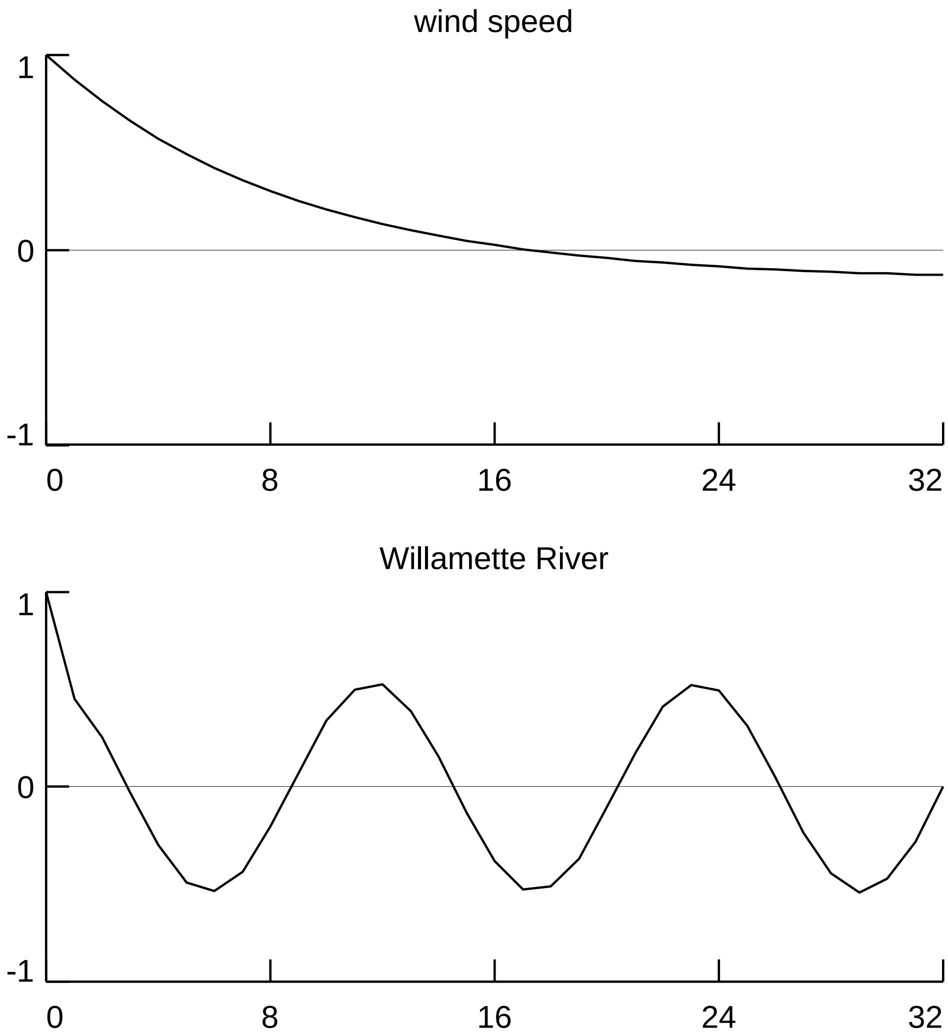

Figure 14. Plots of theoretical autocorrelation sequences of models for two time series in Figure 2 (cf. Figure 6).

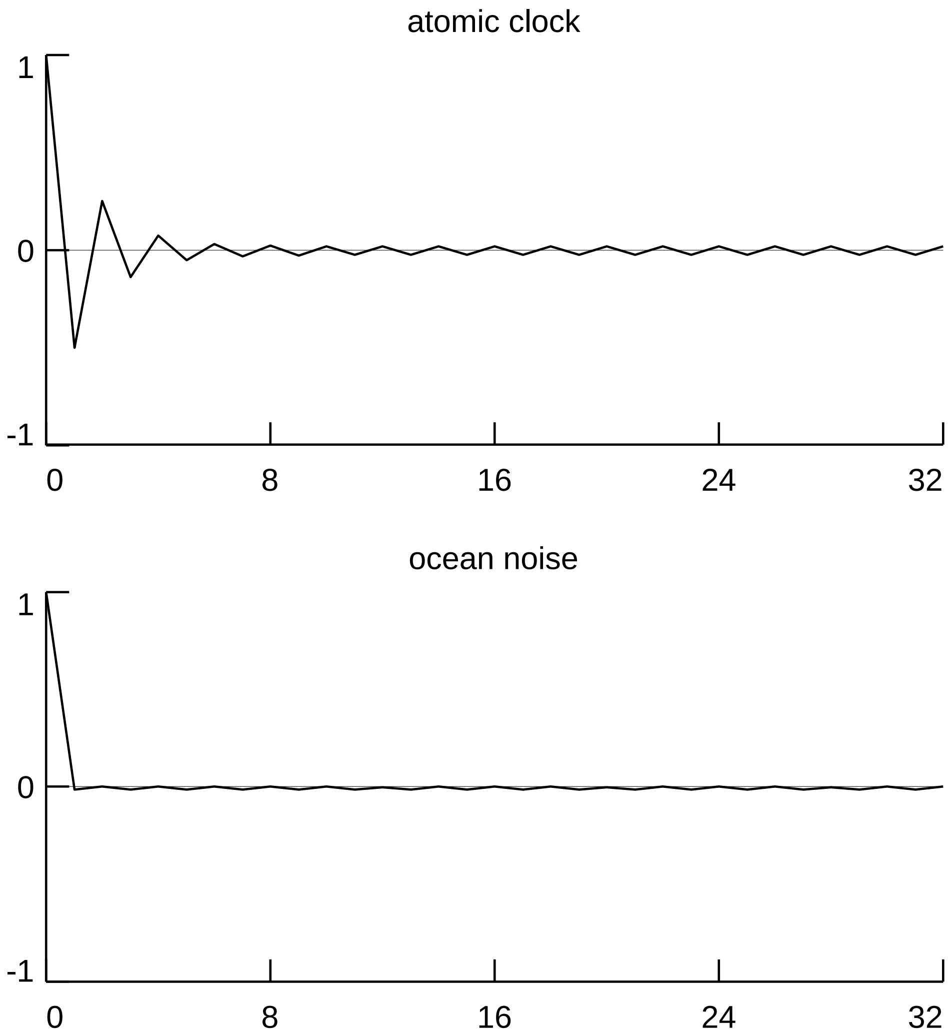

Figure 15. Plots of theoretical autocorrelation sequences of models for two time series in Figure 3 (cf. Figure 7).

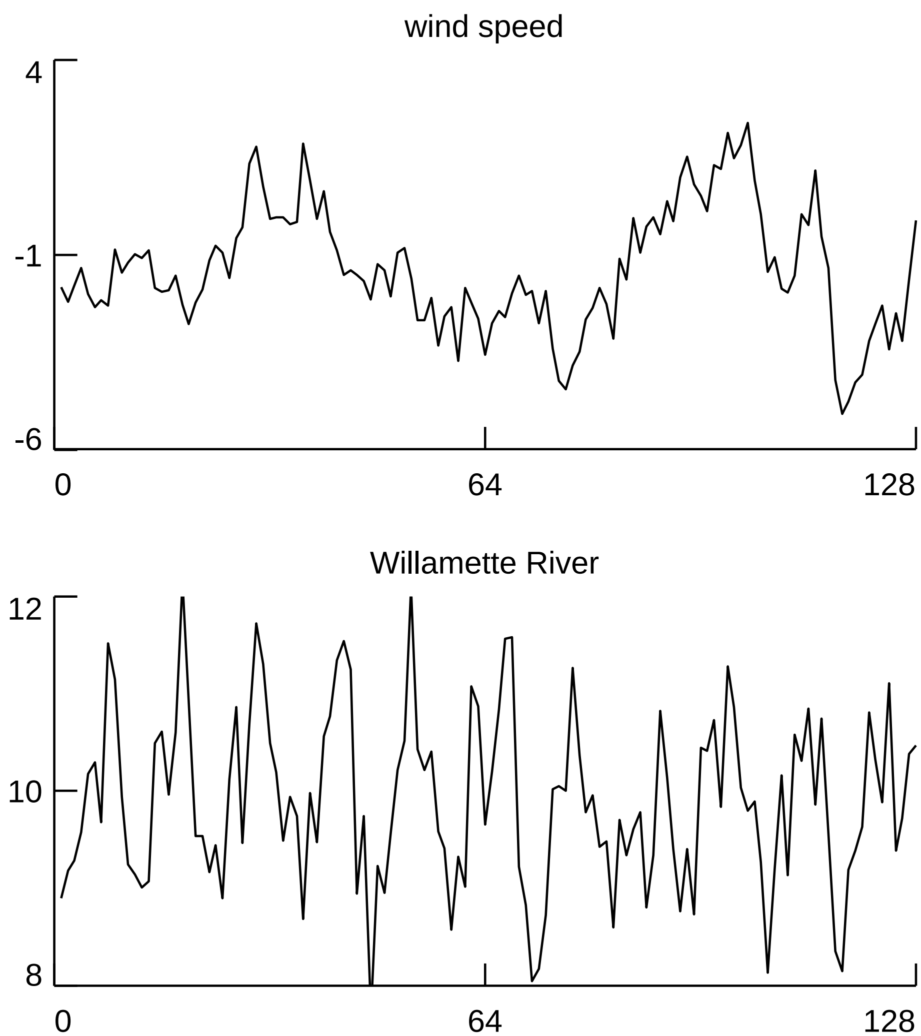

Figure 16. Plots of two simulated time series with statistical properties similar to series in Figure 2.

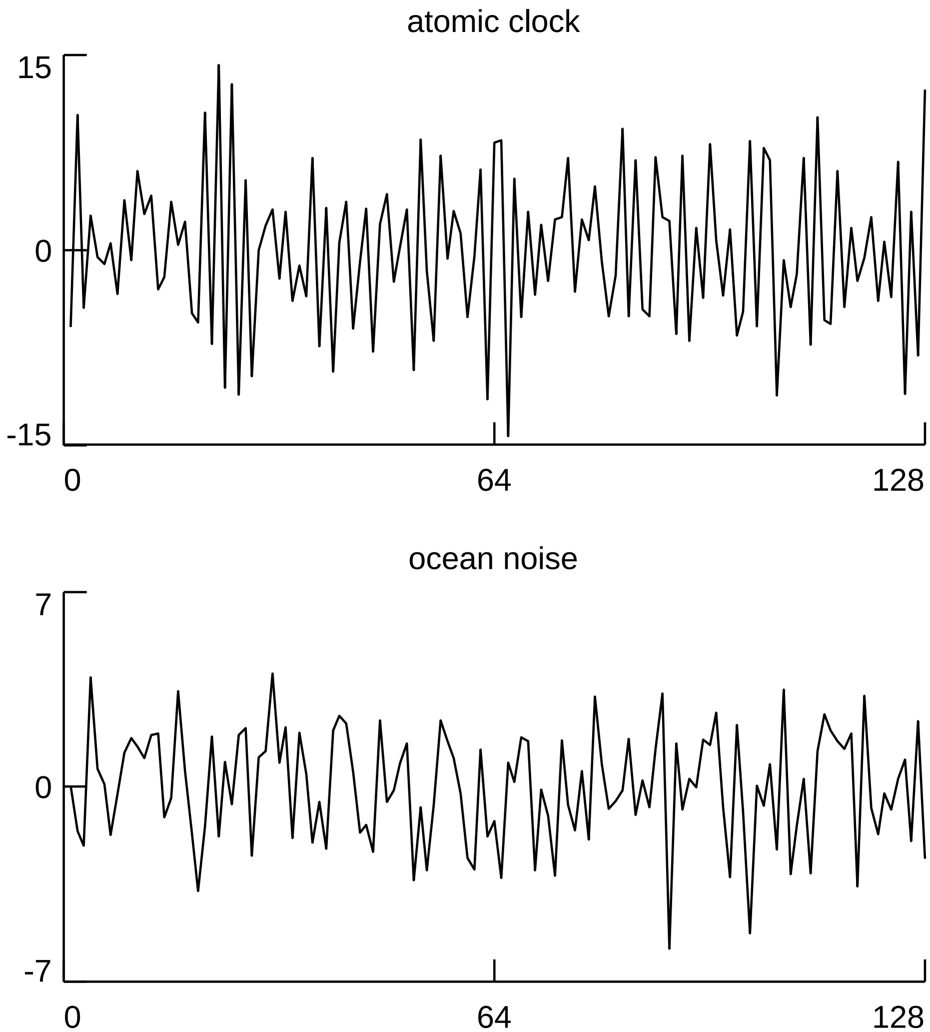

Figure 17. Plots of two simulated time series with statistical properties similar to series in Figure 3.

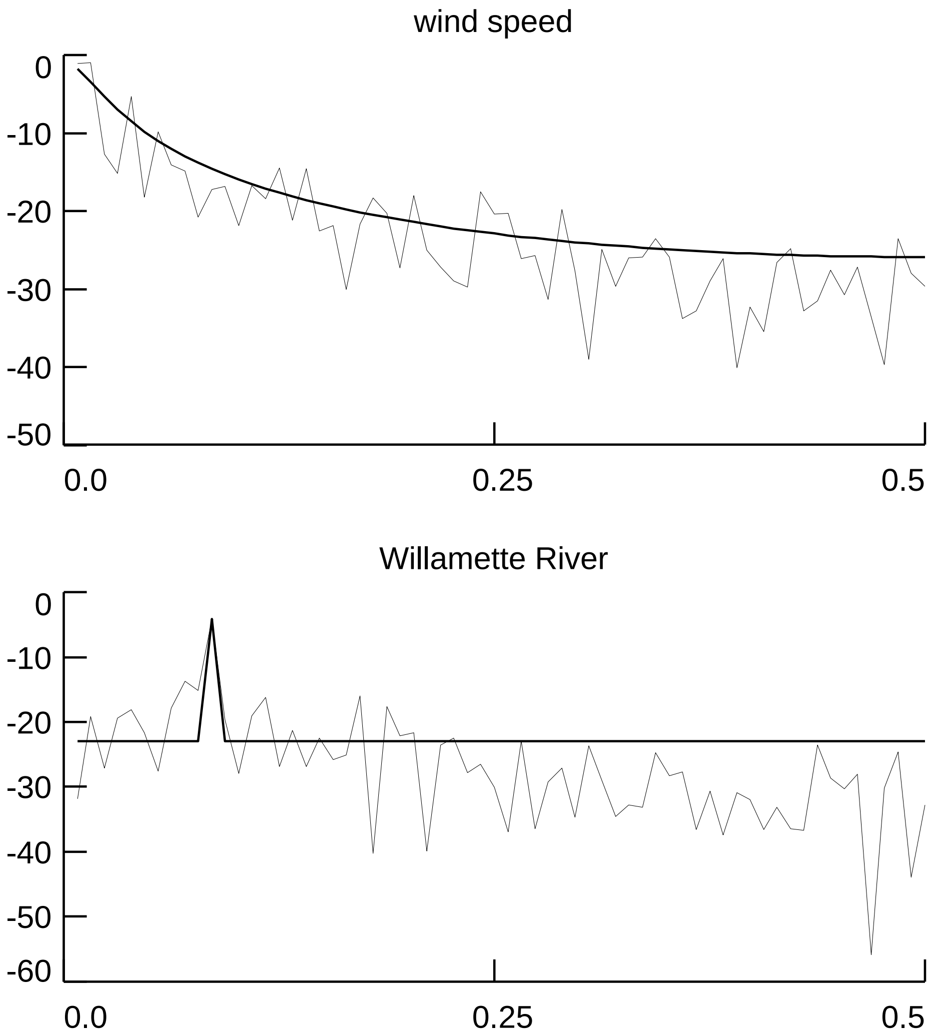

Figure 20. Comparison of theoretical and estimated spectra for two time series in Figure 2. The thick curves are the theoretical spectra (copied from Figure 12), while the thin curves are the estimated spectra. The units of the axes are the same as those of Figure 12.

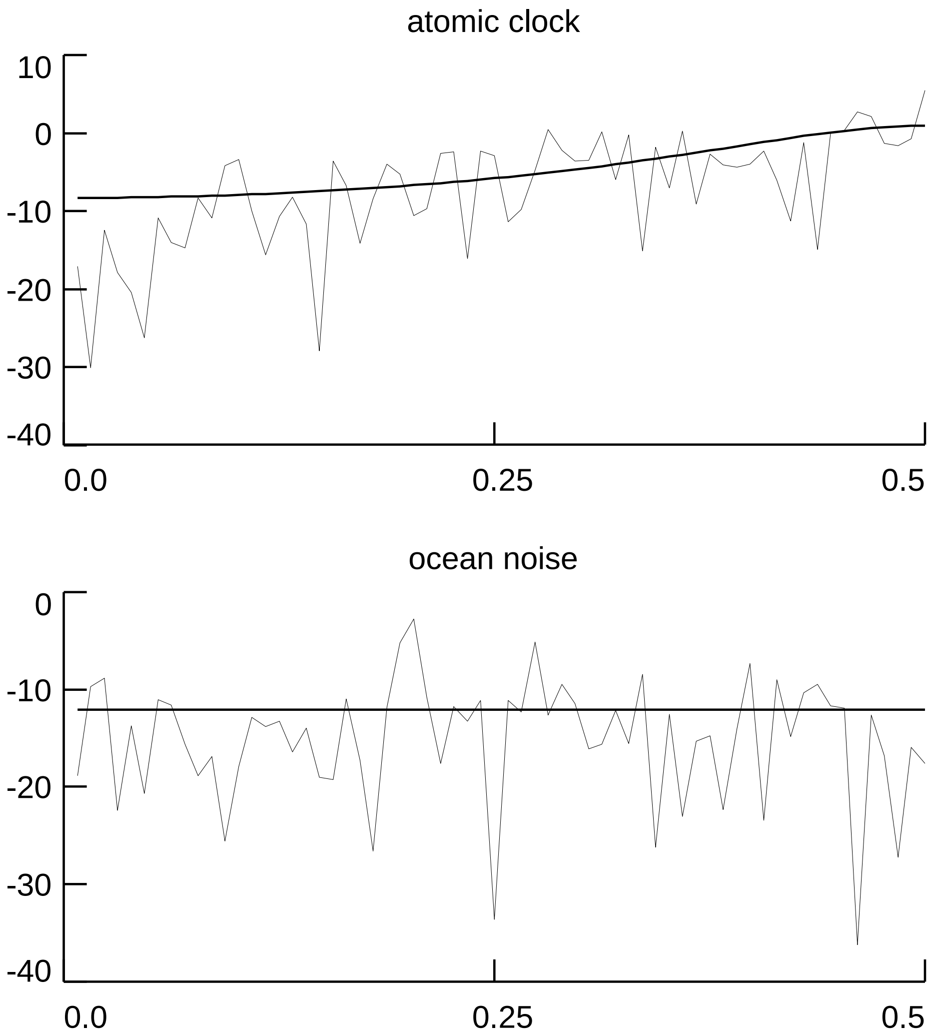

Figure 21. Comparison of theoretical and estimated spectra for two time series in Figure 3.